PORT STATE CONTROL COMMITTEE INSTRUCTION 58/2025/02

SOLAS CHAPTER IV, 2022 AMENDMENT, AND THE GMDSS (GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM)

Contents

1. INTRODUCTION

1.1 General

The Global Maritime Distress and Safety System (GMDSS), adopted in 1988, has been subject to review and modernization with the aim to adapt to modern communication systems and remove carriage requirements for obsolete systems. MSC.105 approved amendments to SOLAS, its Protocol of 1988, and the related IMO instruments to modernize the requirements of the Global Maritime Distress and Safety System (GMDSS).

The modernization implies inter alia more generic requirements, independent of specific service providers (for example, Recognised Mobile Satellite Service is the new generic term replacing Inmarsat), and amended equipment requirements for sea areas A1 to A4. The provisions for communication equipment have been moved from SOLAS Chapter III on life-saving appliances to Chapter IV on radiocommunications, and references to outdated resolutions and circulars have been replaced. Certificates (and their record of equipment) to the new model forms may have already been issued, be planned at the next survey or updated onboard at their expiry, depending on Flag State implementation decision.

The amendments entered into force on 1 January 2024, with retroactive requirement for existing ships.

1.2. Goals and purposes

This guideline provides advice to the PSCO on the inspection of GMDSS requirements.

1.3 Application

The SOLAS 2022 amendment of Chapter IV details the requirement and provisions of the GMDSS. This Chapter is applicable to all cargo ships of 300 gross tons and upwards and all passenger ships that are engaged on international voyages, irrespective of the date of construction.

1.4 Relevant documentation

Certificates[1]

.1 Passenger Ship Safety Certificate supplemented by a Record of Equipment.
.2 Cargo Ship Safety Certificate supplemented by a Record of Equipment.
.3 Cargo Ship Safety Radio Certificate supplemented by a Record of Equipment.
.4 High Speed Craft Safety Certificate supplemented by a Record of Equipment.
.5 Any Exemption Certificates issued in addition to the certificates prescribed above.

Documents related radio installation

.6 Documentary evidence of the annual capacity check of the reserve batteries.[2]
.7 User's manual for all radio equipment and battery chargers and the tools necessary for simple servicing.
.8 Evidence of Shore-based maintenance (such as an agreement), if detailed as method used in the Form R
.9 EPIRB annual test report.
.10 EPIRB 5-yearly shore-based maintenance report.[3]

Documents related radio station

.12 Certification of GMDSS radio operators.[4]
.13 Radio log book.[5]

2. INSPECTION OF SHIP

2.2 Initial inspection

2.2.1 Certificates and documents

The PSCO should examine, as a minimum, those documents listed in Annex 10 of the Paris MOU on an initial inspection. The PSCO may also be guided by the certificates and documents listed in section 1.4 above, where applicable. The relevant certificate supplemented by a Record of Equipment provides the following information:

[1] *(SOLAS 1988 amendment, Chapter I, Reg.12)*

[2] (SOLAS 2022 amendment Chapter IV, Reg 13)
[3] (SOLAS 2022 amendment, Chapter IV, Reg.15)
[4] (SOLAS 2022 Amendment, Reg.16 ; STCW 2010 amended, Annex, Reg.IV)
[5] (SOLAS 2022 Amendment / Reg. 17 ; STCW 2010 amended, STCW Code A-VIII, Part 4-3)

a. Particulars of ship, distinctive numbers or letters and the sea area in which ship is certified to operate[6];
b. If an exemption certificate has or has not been issued;
c. Date of validity of the relevant certificate, including last endorsement, if applicable;
d. Minimum number of persons with required qualifications to operate the radio installations[7];
e. Details of the radio equipment according to the sea area, including the facilities for reception of MSI and SAR related information[8] and the life-saving radio equipment; and
f. Methods used to ensure availability of radio facilities, according to the sea area.

2.2.2 Radio installations[9]

When considering the overall condition as per the remit of an initial inspection, equipment specific inspection checks as detailed in Annex A can be performed based on the professional judgement of the PSCO.

2.3 Clear grounds

If, from general impression or observations on board the PSCO has clear grounds for believing that the ship, its equipment, or its crew does not substantially meet the requirements, the PSCO should proceed to a more detailed inspection.

"Clear grounds" to conduct a more detailed inspection include, but are not limited to:

1. evidence that certificates required by section 1.4 are missing or clearly invalid;
2. evidence that documents required by section 1.4 are missing or clearly invalid;
3. the absence or malfunctioning of equipment or arrangements specified in the certificates or documents;
4. evidence from the PSCO's general impressions or observations that serious deficiencies exist in the equipment or arrangements specified in the certificates or documents;
5. information or evidence that the Deck Officers are not familiar with essential communication operations such as radio watchkeeping, preventive maintenance or the filling in of a radio logbook;
6. information or evidence that the supply of electrical energy is not available at all times or does not charge batteries used as part of a reserve source or sources of energy;
7. the emission of false distress alerts not followed by proper cancellation procedures; and
8. receipt of a report or complaint containing information that a ship (radio equipment) appears to be substandard.

2.4 More detailed inspection

Where clear grounds exist, a more detailed inspection should be conducted by the PSCO. Evidence may be gained by conducting further checks and from examination of certificates and documents.

Annex A provides a non-exhaustive list of examples of equipment specific areas which can be considered in a More Detailed Inspection. The PSCO should inform the Master that all tests are to be performed by radio personnel designated by the Master.

The PSCO need only require a test or inspect sufficient items to enable an assessment to be made of the ship's compliance with GMDSS and the competence of the crew in its operation. Where doubt exists, it may be necessary to check all items.

2.5 Expanded Inspection

[6] For ships certified to operate in sea area A3, the recognized mobile satellite service shall be indicated in brackets.
[7] As per the Form R record of equipment. The Minimum Safe Manning Document may also detail required radio personnel.
[8] MSC.1/Circular 1645 on Guidance for the reception of Maritime Safety Information and Search And Rescue related information as required in the Global Maritime Distress and Safety System (GMDSS) should be considered.
[9] COMSAR.1/Cir.32/Rev.3 to both radio and electrical installation should be considered.

The expanded inspection will include a check of the relevant radiocommunication items listed in PSC Instruction on Types of Inspection

3. FOLLOW-UP ACTION

3.1. Deficiencies warranting detention

In exercising their functions, the PSCO should be guided by a PSC Instruction to determine whether to detain the ship until any noted deficiencies are corrected or to allow it to sail. The PSCO should be guided by the functional requirements of GMDSS contained in SOLAS IV/Regulation 4, which are essential for the navigational safety and for the safety of seafarers.

Whilst all reasonable steps shall be taken to maintain the equipment in efficient working order to ensure compliance with all the functional requirements specified in Regulation 4, malfunction of the equipment for providing the general radiocommunications required by Regulation 4.1.2 shall not be considered as making a ship unseaworthy or as a reason for delaying the ship in ports where repair facilities are not readily available, provided the ship is capable of performing all distress, urgency and safety functions for the intended voyage

In order to assist the PSCO in the use of these Guidelines the following list describes situations of such, a serious nature, taking principles of Regulation 4 into account, that they may warrant the detention of the ship involved. Due account should be taken of the GMDSS sea area for the next voyage and flag State may be consulted.:

1. Absence of valid relevant certificate;
2. Insufficient number of qualified radio operators and/or the inability of ship's radio operators to use ship's radiocommunication equipment or to use the operational procedures for communications properly;
3. All VHF radio installation not as required;
4. All MF radio installation not as required;
5. All MF/HF radio installation not as required;
6. All RMSS ship earth station not as required;
7. MSI and SAR related information receivers not as required;
8. Float-free EPIRB not as required;
9. All Radar SART and/or AIS-SART not as required;
10. All portable two-way VHF radiotelephone apparatus not as required;
11. Antenna systems not as required; and
12. Reserve source of energy supply to radio station not as required;

The following non-exhaustive list of functional requirements may be considered when determining if a vessel can comply with SOLAS requirements

- VHF: Failure to establish a DSC alert and a call to a Coast radio station;
- MF: Failure to establish a routine or test DSC alert and a test call to a Coast radio station;
- HF: Failure to establish a routine or test DSC alert and a test call to a Coast radio station on an appropriate frequency band;
- RMSS ship earth station: Failure to establish communications with a Land Earth Station or a ship;
- MSI and SAR related information receivers: Ship not receiving transmissions from the NAVTEX receiver, HF NBDP receiver and/or international EGC receivers;
- Float-free EPIRB: Incorrectly mounted or not be easily released manually by one person; Battery out of date; Hydrostatic Release out of date; Test Sequence incorrect ,e.g. indicator lamps not functioning in accordance with the Test Procedure listed on the equipment, or in the EPIRB Operator's Manual; No evidence of an annual EPIRB test; No evidence of the shore-based maintenance EPIRB test service;
- Radar SART: Test pattern incorrectly displayed on the Radar display; Battery out of date;
- AIS-SART: ID and relevant information wrongly recorded or incorrectly received on the AIS; Battery out of date;

- Reserve source of energy supply: Not capable of providing a source of energy for the radio equipment;

Annex A – Equipment-specific examples of checks available to the PSCO

The following is a non-exhaustive list of examples of equipment specific areas which can be considered during an inspection. The PSCO should inform the Master that all tests are to be performed by OOW designated by the Master, or others on watch during the inspection.

A.1 Radio equipment[10]

The following may be checked:

1. Valid type approval certificate;
2. If the GMDSS equipment provided on board is in accordance with that shown on the Record of Equipment attached to the relevant certificate;
3. If the correct Call Sign and Maritime Mobile Service Identity (MMSI) are marked as applicable at or close by the respective radio transmitters, including the EPIRB;
4. Although an ITU requirement, the ship radio licence onboard can be used as a reference to cross-check the details against the ITU database in cases of false alerts or proper registration of equipment, to establish if there is a SOLAS deficiency;
5. Assess the operation of the ship radio station:
    a. Checking transmission records and details, such as records of Distress and Safety alerts/calls sent and received during the previous voyage through: VHF radio installation, MF radio installation, MF/HF radio installation and/or RMSS ship earth station[11].
    b. Where practicable, using the integrated test facilities or communications with a MRCC/Coast radio station or communications between on board equipment.
    c. Records in the radio log book with regard to:
        i. Test, maintenance, failures and repairs;
        ii. Transmissions and communications during the previous voyage;
        iii. Distress and safety alerts/calls sent and received during the previous voyage; and
        iv. Date, position and OOW signatures.
6. Operational tests on the ship's radiocommunication equipment performed by the GMDSS operator; and
7. Operational procedures for communications during the above-mentioned operational tests.

A.2 VHF radio installation

1. Control of the VHF equipment shall be available on the navigation bridge convenient to the conning position and/or from the bridge wings, if facilities are available.
2. Check correct DSC watchkeeping receiver and the watch on mandatory DSC frequencies.
3. Perform a routine DSC alert and a test call to a nearby Coast radio station, where practicable.
4. Check that the equipment is operated from the main, emergency and reserve source of energy.
5. Check that the ship's position is provided to all two-way communication equipment which is capable of automatically including the ship's position in the distress alert.

A.3 HF and MF/HF radio installation

[10] Attending to specific features and requirements, IMO performance standards should be considered as relevant.

[11] Recognized Mobile Satellite Service ship earth station.

1. Activation of the distress alert should be possible from the navigation bridge and specifically from the conning position in case of passenger ships.
2. Check correct operation of the DSC watchkeeping receiver.
3. Perform a routine or test DSC alert and a test call to a nearby Coast radio station, where practicable.
4. Check that the equipment is operating from the main, emergency and reserve source of energy.

A.4 Recognized Mobile Satellite Service (RMSS) ship earth station

1. Activation of the distress alert should be possible from the navigation bridge.
2. Check the appropriate link to satellite ocean region or coverage area.
3. Perform the tests provided by the specific equipment.
4. Check that the equipment is operating from the reserve source of energy.

A.5 MSI and SAR related information receiver(s)

1. Depending on where the ship operates, should be provided with equipment appropriate for the entire voyage in which the ship is engaged, as follows:

   .1 a receiver capable of receiving international NAVTEX service[12] broadcasts if the ship is engaged on voyages in any area in which an international NAVTEX service is provided; and
   .2 if the ship is engaged in voyages in which an international NAVTEX service is not provided:
   a. a receiver capable of receiving HF NBDP service when a ship is engaged in voyages where such service is provided; or
   b. receiver(s) capable of receiving broadcasts from an international EGC service[13] which provide(s) a service for the operating areas.

2. The printer or display for an MSI and SAR related information receiver should be located on the navigation bridge.
3. Performance check as per the tests provided by the specific equipment.
4. Check that the equipment is operating from the reserve source of energy.

A.6 Float-free EPIRB

1. Located such that it may be easily released manually and brought to the survival craft by one person.
2. Marked with the ship's call sign, serial number of EPIRB, MMSI number and AIS identity (if applicable), Hex ID, and battery expiry date.
3. Bracket, protective cover and Hydrostatic Release Unit (HRU) are undamaged.
4. Battery and HRU have valid expiry dates.
5. Check the general condition of the equipment and performance test(s) provided.
6. Capable of being activated manually.
7. Capable of floating free (i.e. not tied to the ships fittings via lanyard)

A.7 Radar SARTs and AIS-SARTs

1. Properly positioned and mounted, either on the navigation bridge or in survival craft.
2. Batteries have a valid expiry date.
3. Check the general condition of the equipment and perform ~~the~~ a test with the appropriate radar or AIS.

A.8 Portable two-way VHF radiotelephone apparatus

[12] Refer to revised NAVTEX Manual (MSC.1/Circ.1403/Rev.2).

[13] Refer to International SafetyNet Services Manual (MSC.1/Circ.1364/Rev.2) and to Iridium SafetyCast Service Manual (MSC.1/Circ.1613/Rev.2).

1. The required number of emergency VHF radios are available (2 for Under 500GT, 3 for over)
2. The equipment and their emergency batteries available onboard, either fixed in the survival craft or easily accessible (for example on the bridge)
3. Test Call

A.9 Extra requirements for passenger ships

1. A distress panel is installed at the conning position and contain either one single button which, when pressed, initiates a distress alert using all radiocommunication installations required on board for that purpose; or one button for each individual radio installation which are installed.
2. Provided by means to prevent inadvertent activation of the button
3. Ensure that the required two-way on-scene radiocommunications for search and rescue purposes using the aeronautical frequencies 121.5 MHz and 123.1 MHz is placed in the location from which the ship is normally navigated, and if the radio station is portable, check the expiration date of the emergency batteries.
4. If the installed satellite EPIRB is used as the secondary (mandatory) means of distress alerting and is not remotely activated, an additional EPIRB installed on the navigation bridge near the conning position is considered acceptable.

A.10 Qualification of GMDSS operator

1. Verify the radio operator qualifications to ensure that the ship has on board the correct number of qualified GMDSS operators.

A.11 Antennas

1. Visually inspect the general condition of antennas, location, coaxial connectors, cables and insulators, for defects such as breaks in antenna wires.

A.12 Source of energy

1. All required[14] equipment should be operated from the ship's main and emergency source of electrical power.
2. In the event of failure of the ship's mains and emergency source of electrical power, radio installations should be operated from a reserve source or sources of energy.
3. The changeover from the ship's mains or emergency supply to the reserve source of energy should be done automatically and in such a manner that required communication equipment will be connected simultaneously. Where the changeover is done manually, the switch should be readily accessible to the radio operator, clearly labelled and located on the navigation bridge.

4. Such changeover should not require any of the equipment connected to it to be re-initialized manually and should not result in the loss of data stored in memories.

[14] Required equipment includes duplication as per Record of Equipment